

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/632,138	07/31/2003	Nick A. Youker	279.659US1	1822	
21186	7590 01/14/2008	EXAMINER			
SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938			DINH, TUAN T		
MINNEAPOL	IS, MN 55402		ART UNIT	PAPER NUMBER	
			2841		
	•				
			MAIL DATE	DELIVERY MODE	
			01/14/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

			·	111
•		Application No.	Applicant(s)	
		10/632,138	YOUKER ET AL.	
Office Action Sumi	mary	Examiner	Art Unit	
•	•	Tuan T. Dinh	2841	
The MAILING DATE of this Period for Reply	communication ap	pears on the cover she	eet with the correspondence a	ddress
A SHORTENED STATUTORY PI WHICHEVER IS LONGER, FROI - Extensions of time may be available under the after SIX (6) MONTHS from the mailing date - If NO period for reply is specified above, the - Failure to reply within the set or extended pe Any reply received by the Office later than the earned patent term adjustment. See 37 CFR	M THE MAILING D e provisions of 37 CFR 1. of this communication. maximum statutory period fiod for reply will, by statute ee months after the mailin	PATE OF THIS COMM 136(a). In no event, however, r will apply and will expire SIX (6 e. cause the application to become	IUNICATION. nay a reply be timely filed b) MONTHS from the mailing date of this of the ARANDONED (35 U.S.C. & 133)	
Status				
1) Responsive to communicat	ion(s) filed on 10/2	29/07		
2a) ☐ This action is FINAL.		s action is non-final.		
3) Since this application is in o			matters, prosecution as to th	e merits is
closed in accordance with t				
Disposition of Claims		•		
4) ☐ Claim(s) <u>1-26</u> is/are pending 4a) Of the above claim(s) 5) ☐ Claim(s) is/are allow 6) ☐ Claim(s) <u>1-26</u> is/are rejecte 7) ☐ Claim(s) is/are object 8) ☐ Claim(s) are subject	is/are withdra ed. d. ted to.	wn from consideration	•	
Application Papers				
	is/are: a) acc any objection to the including the correct	cepted or b) objected or by objected or by objected or all of the drawing of the	peyance. See 37 CFR 1.85(a). awing(s) is objected to. See 37 C	
Priority under 35 U.S.C. § 119				
2. Certified copies of the3. Copies of the certified	one of: priority document priority document copies of the prion nternational Burea	ts have been received ts have been received rity documents have t u (PCT Rule 17.2(a)).	l. I in Application No Deen received in this Nationa	l Stage
Attachment(s)		. <u>_</u>		
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Information Disclosure Statement(s) (PT Paper No(s)/Mail Date 		Pape	view Summary (PTO-413) r No(s)/Mail Date re of Informal Patent Application r:	

Application/Control Number: 10/632,138

Art Unit: 2841

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/07 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1-6, 8-12, 15-18, and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hittman et al. (U.S. Patent 5,896,267) as in the record.

As to claims 1-5, 15-16, Hittman discloses an apparatus as shown in figures 1-12 comprising:

one or more Input/output (I/0) conductors (12a, 12b), wherein the I/O conductors pass through a hermetic seal (20) such that a first end of the I/O conductors resides on a non-hermetic side of the hermetic seal and a second end of the I/O conductors resides on a hermetic side of the hermetic seal within a hermetically sealed interior of a hermetically sealed metal case of the apparatus;

a printed circuit interconnect substrate (132) residing on the hermetic side of the hermetic seal (20), the substrate is mounted on a hermetic side of the seal (20) and made by ceramic or FR4 material; and

one or more ceramic chip capacitors (110), which are discrete capacitor or surface mount package (claims 15-16) mounted on the printed circuit interconnect substrate to face inward into the interior (the capacitors are covered by a seal part 20), wherein a first end of each capacitor is electrically connected via printed circuit (trace or wiring or patterns 142, 146) interconnect to the second end of the I/O conductor and a second end of each capacitor is electrically connected via the printed circuit interconnect to the metal case (20, 24, and 26).

As to claim 6, Hittman discloses the printed circuit interconnect substrate (132) includes a flexible circuit tape (see figures 6-8).

As to claim 8, Hittman discloses the printed circuit interconnect substrate is a multi-layer substrate (insulating layer and a ground layer).

As to claims 9-12, Hittman discloses the printed circuit interconnect substrate includes an electrically conductive medium, which is a solder or conductive adhesive.

10/632,138 Art Unit: 2841

As to claims 17-18, Hittman discloses the capacitors are included in a multi-chip package, and are adapted to filter electromagnetic interference (EMI).

As to claims 23-26, Hittman discloses the I/O conductors that are pins, wires, or conductive traces formed on/in the circuit board.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hittman) in view of Brendel et al. (U.S. Patent 6,529,103).

Regarding claims 19-22, Hittman does not disclose the hermetic seal is a part of an implantable medical device and the seal material including a ceramic, epoxy, or glass.

Brendel et al teaches an improved internally ground feed through capacitor comprising a hermetic seal is a part of an implantable medical device and the seal material including a ceramic, epoxy, or glass, see column 1, lines 30-62.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Brendel et al. employed in the apparatus of Hittman in order to reduce cost and prevent the ingress of body fluids of implanted

devices, and also, the hermetic seal material made by ceramic, epoxy, or glass is suitable for withstanding high temperature and thermal stress.

5. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hittman in view of Andresakis et al. (U.S. Patent 6,657,849).

As to claims 13-14, Hittman does not disclose the capacitors having a dielectric breakdown voltage of about 1200 volts, or within a range of about 200 to 1500 volts.

Andresakis et al. shows a capacitor having a dielectric breakdown voltage of about 1200 volts, or within a range of about 200 to 1500 volts, see examples 1-5.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Andresakis et al. employed in the apparatus of Hittman in order to provide a high quality ceramic EMI/RFI filter capacitor applied in vary of an electronic device.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hittman in view of Chee (U.S. Patent 6,657,133).

As to claim 7, Hittman does not disclose the flexible circuit tape includes polyimide tape.

Chee teaches a circuit board made by polyimide tape, column 2, lines 30-61.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Chee employed in the apparatus of Hittman in order to provide a flexible and high thermal stress for the circuit board.

10/632,138 Art Unit: 2841

Response to Arguments

Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gutierrez F. Diego can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tuan Dinh January 2008.

TUAN T. DINH PRIMARY EXAMINER

14/08.